



THE CITY OF DRESDEN.



DRESDEN.

THE kingdom of Saxony, which forms part of confederate Germany, has for its capital, the ancient town of DRESDEN. The Elbe divides the city into two portions, which are connected by a fine bridge, 552 feet long, with 16 arches. The country round has a mixture of romantic nature with the richest cultivation; so that the environs of this city are reputed to be more delightful than those of any other capital of Europe. The approach to the city is on almost all sides by avenues shaded by trees. It stands in a fine plain, which is, for the most part, surrounded by eminences covered with trees, vineyards, or gardens. The sweetness and amenity of its aspect have acquired for it the epithet of the "German Florence."

The heights of Kesselsdorf, in the vicinity of Dresden, were celebrated as the scene of some important battles in the early part of the last century, during which the city suffered severely. The important situation of the city caused a fort to be built there as early as the ninth century. The city was bombarded for nine days by Frederick the Great, in 1760; and it has been exposed to the devastations of war upon other occasions. The Austrians occupied the city in 1809, without injuring it. In the following year they began to pull down the fortifications, but desisted on the breaking out of the Russian war. To the historian, however, Dresden will present its most remarkable feature in being the centre of operations, in 1813, in the great and important contests, when almost all the powers of Europe were arrayed against Napoleon. Besides the political importance of Dresden, as a capital, the possession of the Elbe, by means of some of the most important fortresses, was another motive, which induced Napoleon to place himself with his whole army on the banks of this river; and the

entire neighbourhood resembled a great fortified camp, from which he could pour forth his columns, with equal ease, on the chief cities around. The Emperor displayed the most consummate skill in the defences of the city, as a military post. At the final retreat of the French, Dresden received a strong Russian garrison and became the seat of the Russian administration under Prince Repnin. The king of Saxony was twenty months a prisoner of the Allied Powers, and his dominions were then governed by Russian and Prussian authorities. The adherence of this king to the fortunes of Napoleon, though rare and admirable as an instance of political integrity, was disastrous to himself and his monarchy; his dominions were dismembered by the congress of Vienna, and the northern and eastern parts of his territory transferred to Prussia.

When the French retreated from Dresden to Leipzig in 1813, they blew up the central part of the bridge over the Elbe, which was repaired at the expense of the Emperor of Russia.

Dresden has very little external trade or manufacture. It is a place of transit for foreign produce, and has several fairs during the year. The manufactures of mathematical, mechanical, and musical instruments have arrived at some celebrity in this place; together with several other arts and trades; such as the making of porcelain, earthenware, lace, mirrors, and plaited straw. There is a foundry for bomb-shells and cannon, and another for bells: there is also a yearly exhibition of Saxon manufactures. The municipal expenses amount to nearly 7000*l.* a year, and the population may be reckoned at 60,000 souls. As a town, answering to the uses and conveniences of life, this place has been much improved since the war, by the levelling of the fortifications;

whereby the space gained has been used for gardens, promenades, and new buildings.

Excepting the people of Vienna, the capital of Austria, no people of Germany are so fond of being out of doors as the Saxons of Dresden, and no other capital displays so many temptations to allure them; wood and water, mountain and plain, precipice and valley, corn and wine, palace and cottage, seem tossed together in bright confusion, and glowing in a climate, which, north of the Alps, may well be called genial. The rising ground to the south-east of the city, which was the principal scene of the combats and bombardments that terminated in the retreat of the French to Leipsic, is the only part of the environs at all devoid of natural sweetness and beauty.

As the season of Spring comes on, strangers visit Dresden from all parts of Europe; and this city, with its fine sky and scenery, becomes for a great part of the year the general rendezvous of Germany.

One of the especial sources of attraction for visitors at Dresden is its fine collection of pictures. Hence it has acquired the reputation of being the centre of the arts in Germany. No gallery on this side of the Alps deserves, as a whole, to be placed above it: it is gratifying to find that these pictures have had the rare fortune to be treated with reverence by every hostile hand. Frederick the Great, as we before remarked, battered down the churches of Dresden, and laid its streets in ruins, but he ordered his cannon and mortars to keep clear of the picture-gallery. He entered as a conqueror, levied the taxes, administered the government, and, with an affectation of humility, asked permission of the captive Electress to visit the Gallery as a stranger. Napoleon's policy likewise induced him to treat Saxony with great consideration, and he was careful to preserve the pictures unviolated. None of these went to Paris.

Crowds of copyists fill the gallery during the summer months. A sure and lucrative employment is found in making miniature copies of the more celebrated pictures, or individual groups or figures from them. Of the amateur artists many are ladies, and here the pride of rank, which in everything else in Germany is so unyielding, gives way. The countess pursues her task by the side of her more humble companion, who is copying for her daily bread, under the gaze of every strolling stranger. It is not at all uncommon to find ladies repairing to Dresden from distant capitals to spend part of the summer in copying pictures.

This city possesses likewise one of the most complete collections of copper-plates in Europe. This collection contains everything that is interesting in the history of the art, or valuable for practical excellence. It possesses the earliest copper-plate yet known, bearing the date of 1466. A vast quantity of ancient sculptures, and casts in gypsum of other great works, which could not be bought, completes the Saxon school of arts.

Amongst the curiosities of Dresden we must not pass over the treasures of the "Green Vault," of which every Saxon is so proud. Whoever takes pleasure in the glitter of precious stones, and in gold and silver, wrought not only into royal ornaments, but into every form that art can give them, will find much delight in strolling through the apartments of this gorgeous toy-shop. Here are the crowns, jewels, and regal attire of the Saxon princes for ages back. Pearls, and innumerable carvings in ivory are here, and jewelled nick-nacks of all sorts and sizes.

There is also the armoury for ancient weapons, all so complete with reference to the middle ages, that were Europe thrown back by the word of an enchanter, to those times, Saxony could take the field with a duly equipped army sooner than any other power. This place is therefore just what a well-stored armoury must have been in the days of yore. Among the relics kept here is the first instrument with which Schwarz tried his newly invented gunpowder. The fire is produced by friction.

A small bar of iron placed parallel to the barrel is moved rapidly backwards and forwards by the hand: above it is a flint, whose edge is pressed firmly against the upper surface of the bar by a spring: the friction of the flint against the bar strikes out the fire, which falls upon the powder in a small pan beneath.

One of the least pleasing features of this gay and elegant capital is the number of condemned malefactors employed in cleaning the streets, fettered by the leg, and kept to their labour by the rod of an overseer and the muskets of sentinels. When not so employed their time is spent in a miserable and corrupting confinement, in dungeons always loathsome, and sometimes subterraneous. Some of the German lecturers on political economy rail at the bad management of English prisons, without seeming to look to faults nearer home, which if, correctly narrated by travellers, are discreditable to any European country.

One thing which attracts the early curiosity of visitors at Dresden, is the custom of young lads singing psalms on Sundays and feast days about the town. Pious men have bequeathed funds to give a number of boys, who are at the same time choristers of the different churches, a cocked hat, a black scarf, and a suit of clothes, on condition of their entertaining the inhabitants with sacred music. Bands of ten or a dozen, with one for a leader, each dressed in black, with a cocked hat and scarf, march slowly about the town, and stopping at every second or third house, sing a psalm. This singing is often very agreeable: the shrill clear voices of the young people, sounding through the streets, have something of simplicity, which oftentimes pleases as much as the multiplied tones and warblings of the royal orchestra.

THE EMIGRANTS' FIRST SABBATH IN AFRICA.

It was, indeed, an affecting sight, to look round on our little band of Scottish emigrants, thus congregated for the first time to worship God in the wild glen allotted for their future home, and the heritage of their offspring. There sat, with his silvery locks, the aged patriarch of the party, with his Bible on his knee—a picture of the high-principled, grave, Scottish husbandman; his respectable family seated around him. There was the widow, with her meek, kind, and quiet look—the look of one who had seen better days, but who, in adversity, had found pious resignation—with her three stalwart sons, and her young maiden daughter, placed beside her on the grass. There, too, were others, delicate females—one of them very nearly related to myself—of whom I need not more particularly speak. There was the younger brother of a Scottish laird, rich in blood, but poor in fortune, who, with an estimable pride, had preferred a farm in South Africa to dependance on aristocratic connections at home. Looking round on these collected groups, on this day of solemn assemblage, such reflections as the following irresistibly crowded on my mind:—"Have I led forth from their native homes, to this remote corner of the globe, all these my friends and relatives, for good or for evil!—to perish miserably in the wilderness, or to become the honoured founders of a prosperous settlement, destined to extend the benefits of civilization and the blessed light of the Gospel through this dark nook of benighted Africa?" The issue of our enterprise is known only to Him who ordereth all things well. Having selected one of the hymns of our national church, all united in singing it to one of the old pathetic melodies of our native land. The day was bright and still, and the voice of psalms rose with a sweet and touching solemnity among those wild mountains where the praise of the true God had never, in all human probability, been sung before. We then read some of the most suitable portions of the English Liturgy, and concluded with an excellent discourse from a volume of sermons presented to me on parting by the Rev. Dr. Pringle, of Perth. We had a similar service in the afternoon. While we were singing our last psalm, an antelope stood for a little while on the opposite side of the rivulet, gazing at us with innocent amazement. — PRINGLE'S *African Sketches*.

OPTICAL ILLUSIONS. VII.

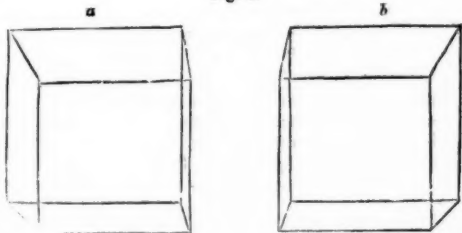
ON BINOCULAR VISION.

We now invite the reader's attention to a very curious class of optical illusions, connected with the use of *two* eyes in the process of vision. Under the ordinary sense of the word illusion, it is not usual to apply such a term to the act of seeing; but in fact it is one of the most beautiful of all illusions, viz., the impression on the mind that two distinct acts of vision, one by each eye, form but one act.

Opticians and anatomists have frequently asked, "Why does not vision with two eyes produce in the mind the idea of a double object? How can single vision result from the use of *two* eyes at once?" It is known that an image of the object is impressed on the retina of each eye; and it appears natural to suppose that the mind would thence recognise two objects instead of one, whenever we look with both eyes at once. This, however, is not the case; and numerous theories have been formed to account for the illusion. Of all these theories that proposed by Professor Wheatstone is the only one which seems to meet all the difficulties of the case. We are strongly disposed to think that it is the correct explanation; and we will endeavour to give a popular sketch of that gentleman's views, as presented in a paper read before the Royal Society three or four years ago.

Professor Wheatstone grounds his explanation upon this proposition,—That in all the ordinary cases of vision with two eyes, the effect produced upon the mind is *compounded* of the two effects which would be produced by each eye separately. Hitherto, inquirers on this subject have been in the habit of assuming that an object presents the same appearance to one eye as to the other; but Mr. Wheatstone's explanation is greatly dependant on the curious fact that the appearance of an object is *not* precisely the same to the two eyes. To shew the nature of the difference, place a small cube immediately in front of the eyes, and at about seven inches' distance from them; shut each eye in succession, and look with the other; the cube will not present the same shape to each eye, but will appear as *a* in the one instance, and *b* in the other, in Fig. 1. They are slightly dissimilar, and this dissimilarity increases as the optic axes

Fig. 1.



converge more rapidly, or, which is the same thing, as the object is viewed at a smaller distance. Supposing the cube to be small—a die for instance—it will be seen on a little attention, that the difference arises from the circumstance, that with the right eye we can see a little of the right *side* of the cube, but not the left side; while with the left eye we see a little of the left side of the cube, and none of the right.

Mr. Wheatstone supposes that our ideas of objects placed at a moderate distance, are formed from the combination of these two images superposed as it were in the mind; and that the chief reason why we do not mistake a picture, however cleverly painted, for the object which it is intended to represent, is, that the image of a picture is exactly the same in both eyes, since the picture does not present *sides* or *bulk*, but only a flat surface; whereas the image of an object is different in the two eyes. When an object is viewed from afar, the same

difference does not exist, and a consequence results which we will state in Mr. Wheatstone's own words:—

When an object is viewed at so great a distance that the optic axes of both eyes are sensibly parallel when directed towards it, the perspective projections of it, seen by each eye separately, are similar, and the appearance to the two eyes is precisely the same as when the object is seen by one eye only. There is in such case, no difference between the visual appearance of an object in relief, and its perspective projection on a plane surface; and hence pictorial representations of distant objects, when those circumstances which would prevent or disturb the illusion are carefully excluded may be rendered such perfect resemblances of the objects they are intended to represent, as to be mistaken for them; the Diorama is an instance of this. But this similarity no longer exists when the object is placed so near the eyes that to view it the optic axes must converge; under these conditions a different perspective projection of it is seen by each eye, and these perspectives are more dissimilar as the convergence of the optic axes becomes greater.

It will be convenient to give the name of *right image* to the appearance which an object presents when viewed by the right eye, and *left image* to the appearance presented to the left eye. We may then state that in all pictures, the right and left images are alike; that in objects seen from a great distance, the images are so nearly alike that we cannot discern any difference between them; that in objects seen at a short distance, the images are decidedly dissimilar; and that the illusive effects of pictures depend greatly on the distance of the objects which they are intended to represent. A picture of a near solid object *cannot* be made to represent exactly the appearance of the object itself, however consummate may be the skill of the painter; for the right and left images of his picture are similar, while those of the object are dissimilar. The mind does not accustom itself to the image presented by either eye singly, but to both together superposed or combined; consequently a combination of two similar images (the ordinary vision of a picture) cannot exactly resemble a combination of two dissimilar images (the ordinary vision of a solid object).

Mr. Wheatstone states, that no former writer seems to have been aware of this subject, with the exception of the great painter Leonardo da Vinci, who explains why a painter could not represent a small object exactly as it is seen by the eye, because the portion seen by one eye is not the same as that seen by the other. But Da Vinci failed to follow out the fact to its singular consequences.

A very curious question now presents itself. If the right and left images of an object are dissimilar, and a picture fails to be completely illusive because its right and left images are similar, what would result if we place before the eyes two pictures at the same time, one representing the right image, and the other the left image, of any given object? To the solution of this question Mr. Wheatstone directed his attention. It is necessary to make the images of the two pictures fall on similar parts of the two retinæ; and fig. 2. will shew how this may be done in a simple way. Under the ordinary circumstances of vision, the object is seen at the point where the two

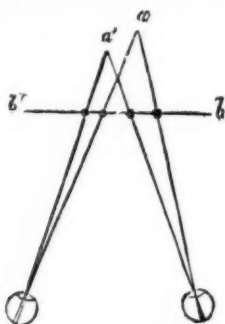
Fig. 2.



axes meet; but two objects may be seen as one, if they are placed one in the direction of each optic axis, at equal distances before or behind their intersection. In all the three cases (fig. 2, *a. b. c.*) the mind recognises but one object. As unpractised persons, however, find it difficult to focalize the eyes properly, Mr. Wheatstone recommends the employment of a pair of tubes, capable of being inclined towards each other at various angles, so as to correspond with different convergences of the optic axes. By the use of such tubes, or by the naked eyes with a little practice, a person might make two objects appear as one, if similarly situated with respect to the converging point of the two optic axes.

Now, if the two objects thus placed, instead of being exactly similar, were perspective projections of the same solid object, the mind will still continue to perceive the object to be single; but instead of a representation on a plane surface, as each drawing appears to be when separately viewed by that eye which is directed towards it, the observer will perceive a figure of three dimensions, the exact counterpart of the object from which the drawings were made. These effects may be illustrated by one or two instances:—If two vertical lines near each other, but at different distances from the spectator, be regarded first with one eye, and then with the other, the distance between them when referred to the same plane will appear different; if the left hand line be nearer to the eyes, the distance as seen by the left eye will be less than the distance as seen by the right. This is exemplified in fig. 3, where *a'a* represent the positions

Fig. 3.



occupied by the two lines; and the points on the cross section *b b* shew the relative distances at which they appear apart when seen by the two eyes separately. Now if the lines here spoken of were drawn on two pieces of card, at the respective distances at which they appear to each eye, and these cards be afterwards viewed by the aid of the tubes above alluded to, the observer will no longer see two lines on a plane surface; but two lines will appear, one nearer to him than the other, precisely as the original vertical lines themselves. Again, if a straight line be held before the eyes in such a position that one of its ends shall be nearer to the observer than the other is, each eye, separately referring it to a plane perpendicular to the common axis, will see a line differently inclined; and if lines, having the same apparent inclinations, be drawn on two pieces of card, and be presented to the eyes as before directed, the real position of the original line will be correctly perceived by the mind.

Mr. Wheatstone traces all these effects to the same source as that whence arises a curious appearance observed when a plate of metal, whose surface has been turned on a lathe, is viewed by candle-light. When a single candle is brought near such a plate, a line of light appears standing out from it, one half being above, and the other half below, the surface; the position and inclination of the line changing with the position of the light and the observer, but always passing through the centre of the plate. On closing the left eye the relief disappears, and the luminous line coincides with one of the diameters of the plate; on closing the right eye the line

appears equally in the plane of the surface, but coincides with another diameter; on opening both eyes, it instantly starts into relief. The luminous line here spoken of results from the reflection of light from the minutely depressed concentric circles produced by the tool in the operation of turning. The Professor remarks that this appearance must have been observed by many persons, but that none had thought of referring it to its cause; which is exactly analogous to that of the vision of two inclined lines, when each is presented to a different eye focalized in the manner before described.

The difficulty of effecting this focalization with exactness led Mr. Wheatstone to construct a very ingenious instrument called a *stereoscope*, the arrangement and employment of which we shall describe in our next paper on this subject.

"FIFTEEN YEARS AGO."

Oh! 'tis but "fifteen years ago,"

(How the years fleet fast away!)

That I heard the winds of Autumn blow,

As I hear their voice to-day;

And saw,—as now they meet mine eye—

The bleak trees, stripped and bare,

Lift up their wild arms to the sky,

Like mourners in despair;—

While the leaves—like the hopes of the mourner—dead,

Bestrewed the withered earth;

And I looked on the desolate scene, and said,

With a sorrow akin to mirth,

"I love the pomp of the dying year,"—

And gazed, as oft a child

Hath gazed, they tell us, on a bier,

And then, unconscious, smiled.

What then were the sky and the earth to me,

In their places, foul or fair?

My heart was young, and I thought there would be

Eternal summer there.

But now, as life with the rolling wave

Of each rapid year sweeps on,

All the buoyant swell of hope, that gave

My spirit strength, is gone.

Like the earth and the sky, I seem to bear

Each change the seasons bring;

But oh! I ne'er can hope to share

With them another spring.

Decay for all things!—all alas!—

Now fifteen years have flown—

Reflect, as mirrored in a glass,

An emblem of mine own.

My spring is gone; my summer's sun

Wears Autumn's sombre glow—

Oh! it was not thus my verse had run

But "fifteen years ago."—J. S. B.

THOMAS CURSON, born in Allhallows, Lombard-street, armourer, dwelt without Bishopgate. It happened that a stage-player borrowed a rusty musket, which had long lain leger in his shop: now though his part were comical, he therewith acted an unexpected tragedy, killing one of the standers-by, the gun casually going off on the stage, which he suspected not to be charged. Oh! the difference of divers men in the tenderness of their consciences; some are scarce touched with a wound, whilst others are wounded with a touch therein. This poor armourer was highly afflicted therewith, though done against his will, yea without his knowledge, in his absence, by another, out of mere chance. Hereupon he resolved to give all his estate to pious uses: no sooner had he gotten a round sum, but presently he posted with it in his apron to the Court of Aldermen, and was in pain till by their direction he had settled it for the relief of the poor in his own and other parishes, and disposed of some hundreds of pounds accordingly, as I am credibly informed by the then churchwardens of the said parish. Thus as he conceived himself casually (though at a great distance) to have occasioned the death of one, he was the immediate and direct cause of giving a comfortable living to many.—FULLER.

ON CHESS. No. XX.

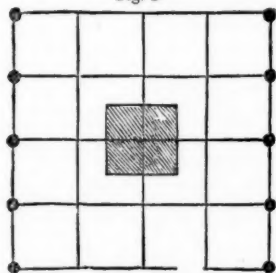
ANCIENT GAMES FROM WHICH CHESS IS SUPPOSED TO HAVE BEEN DERIVED.

IN two former articles we investigated the powers of the pieces, and endeavoured to afford an easy account of the various methods which have been adopted for obtaining those numerical values which are given to the pieces in elementary works on chess. We propose now to inquire how the pieces became invested with their present powers; and although our information on this subject is not very precise, yet it is sufficiently interesting to form part of the present series.

The Hindoo origin of chess, supported by Dr. Hyde, Sir William Jones, and others, was for a long time credited, until Mr. Christie proposed to consider "whether it be more natural to conceive the game to have been invented by an effort of the mind of one person, and devised, formed, and perfected at one instant of time; or whether it may not be considered probable, that some rude materials existed, which falling into the hands of ingenious and able workmen, at different periods, were variously fashioned by them, and united at last in the elegant structure of the modern game." We propose to give a brief analysis of Christie's attempt to prove "that a game of pastoral origin was already in general use, which being expanded as to the superficies of its board, and augmented in the number of its men, and varied in the properties of its pieces, might have been fashioned and completed by the ingenuity of the Orientals into the modern game of chess."

Among the ancient games of skill the one to which writers have referred the origin of chess is the *παιρεια*, or the game of the pebbles, supposed to have been invented by Palamedes at the siege of Troy. From scattered words and phrases in various Greek writers, it is probable that the game was played on a board containing sixteen squares with a central space called *ιερὰ γράμμη*, the sacred barrier. The game was played by two persons, one being provided with five white pebbles and the other with five black pebbles, arranged at the beginning of the game as in the accompanying figure. Each

Fig. 1.



player endeavoured to cut off, inclose, or block up, his adversary's men. In Constantine's *Lexicon* the "sacred barrier" is thus alluded to:—"The middle line was the extreme boundary beyond which the men could not be moved, and this was also termed the sacred line; wherefore when either of the parties was driven up to this fixed line or mark in the centre of the board, he then moved his piece from it, saying, 'I move my pebble from the sacred.'" The offensive moves seem to have had the following objects: 1, the temporary circumvention, where the pebble was checked between the sacred and another pebble; and was then, according to a law of the game, withdrawn with the expression just quoted; 2, the circumvention of any pebble took place between two hostile pebbles; retreat being cut off, such pebble was then taken; 3, each party endeavoured to get beyond the sacred, so as to occupy his adversary's half of the board, and so to crowd his game that no move should be left to him: the game was then finished.

There is a game which has been played all over the north of Europe from the remotest antiquity, which Christie supposes to be identical with the Greek game *παιρεια*, and more ancient than the *παιρεια*, since depositing the pebbles seems to be more simple and primitive than moving them. The game is played on a board of

the following form, and is known in England by various names, such as, "Ninepenny Marl," "the game of Morris" or "Nine Men's Morris" also "Fivepenny Morris," and lastly "Merelles." Some writers state that the game was introduced into this country by the Norman conquerors, under the name of *merelles*; and that this word, which signifies *counters*, was afterwards corrupted into *morals* and *morris*. Others suppose the pastime to have derived the appellation of "Nine Men's Morris" from the different coloured men being moved backwards and forwards as though they were dancing a morris.

The scheme or board for the game is frequently chalked on the ground; on barn floors; on the crown of a hat; on the side of a pair of bellows; upon a table; or, (as we have often seen it on Salisbury Plain,) it is cut out in the green sward. Hence the remark of Titania in the *Midsummer Night's Dream*:

[The nine men's morris is filled up with mud, alluding to the wet season, which had obliterated the rustic merelle board.

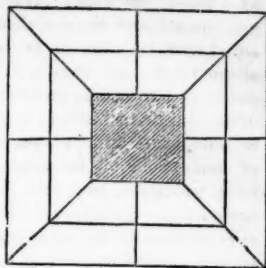
Strutt, the historian of the *Sports and Pastimes of the People of England*, gives a figure of the merelle-table as it appeared in the fourteenth century, the lines of which are similar to those in figure 2; the only difference is, that each of the angles is marked by a black spot.

The manner of playing the game is briefly thus:—two persons, each having nine men, different in colour or form, for distinction's sake, place them alternately, one by one, upon the angles or spots; and the object of either party is to prevent his antagonist from placing three of his pieces so as to form a row of three, without the intervention of an opponent piece. If he succeed in forming a row, he takes one of his antagonist's pieces from any part except from a row of three which must not be touched if he have another piece on the board. Every piece that is taken is put into the central square. When all the pieces are laid down, they are played backwards and forwards, in any direction that the lines run, but they can only move from one spot to another at one time. He that takes all his opponent's pieces is the conqueror. The game is subject to slight variations in different counties of England. In Wiltshire, if the losing party have his men reduced to three, they can hop and skip into any vacant place, in order to form a line. However simple this rustic game may appear, much skill is required, particularly in the choice of the first places, so as to enable the player to form the lines as perfectly and as quickly as possible.

The Oriental name for the central space (Fig. 2) is equivalent to the English *pound* or *fold*, and Christie thinks it very probable that it was originally intended to represent something of this kind; for, as the Eastern shepherds amused themselves by playing with the pebbles, whilst they watched their *folds*, they might afterwards have introduced the figure of the fold itself as an ornament to the board, and as a settled place for depositing the pebbles captured during the game.

From a critical examination of the Greek writers, our author concludes, that the game of the pebbles was derived from the original game of the Asiatic shepherds. The pastoral character of this game now became military—the central *fold* was converted into a *sacred*, which acted as a kind of mound or barrier against mutual incursions. In the course of time the game was modified by the use of dice as well as pebbles, and formed

Fig. 2.



the ancient *plindon*: the board was now called the *city*, the pebbles *dogs*, and the object of the game was said to be to capture the city: the pieces appear to have been of two colours, and one pebble being circumvented by two others of an opposite colour was captured. There appear to have been twelve points on each side of the board, and fifteen men of each colour; but here, as the conclusions of our author lead us rather to the game of backgammon than to chess, we omit much of his theory.

The steps by which our author supposes the advance to have been made from this primitive game to that of chess, (in which there is, *first*, not a sacred line, but a royal line behind each row of pebbles or pawns, *secondly*, a king whose person is sacred, and, *thirdly*, officers to attend him,) are so very ingenious that we quote the passage at full:

I have before explained, the meaning and office of the *sacred mark* in the *petreia*; and have shown that, as the object of the game was to effect a circumvention of any one pebble, between two of the adverse party, so, the same could be produced by forcing a pebble into an intermediate station between the *sacred* and a hostile piece. This was an advantage only to be found in the centre of the board. But the purpose of the *sacred* was not complete; for the assistance of the *sacred* would often have been desirable for effecting a circumvention in the distant parts of the board. Hence arose the idea of making it *moveable*. By its power of co-operating with a pebble in circumventing, it was already endowed with the properties of a piece; and it was therefore no great stretch of innovation to raise it to the dignity of one, thereby giving it in form what it already possessed virtually. As the advantages of it, in its first inactive state, had been common to both, so it was now but fair that each party should have a pebble endowed as the *iepa* *γρῦμῳ* had been. To distinguish it from the rest, it was perhaps called the "*inviolable pebble*." As the *central mark* was *sacred*, so was this *inviolable*; and hence the custom of NEVER TAKING THE KING AT CHESS. As it would not have been prudent to expose the *sacred* person of this pebble in the front line, and the scanty dimensions of the board would not allow of the pebbles being obtruded further upon the middle of the board, a place was assigned to it in the centre of an additional or rear rank. An imperfection yet remained. The properties of the *sacred* were twofold,—*inviolability*, and the power of making any pebble *recede* from it. We have only found a representative for its first property. The whole virtue of the *sacred* was to be called into action. The *inviolable* pebble was the solitary occupier of the rear rank:—it was thought proper that *attendants* should be given to the right and left of it, who should share amongst them the *offensive* powers of the *sacred*, which it might not have been so consistent with the character of the first dignified pebble to assume. The power of causing to *retire*, was therefore vested in the companion of the *inviolable* piece; and hence we have derived the custom of *checking*. And with all this, the original object of the *petreia* was still retained, namely, the *BLOCKADE*; to which the *check-mate* of the modern chess is certainly analogous; only that in the early game it was attempted indiscriminately upon the pebbles in general; and in the improved game, the effect of it is exclusively directed to the most conspicuous piece.

The most important feature in this ingenious argument is the metamorphosis of the *sacred* mound, barrier, or temple, into a "*king*," endowed with the *inviolability* of the *sacred* (that is, not subject to capture); but conferring the repelling power of the *sacred* on the persons of certain officers or superior pebbles provided for that purpose. In modern chess the king has little or no repellent power; for he cannot put himself into check, while all the other pieces may do so. The *sacred* being thus converted into an *inviolable* piece, and four officers being created in order to repel attack, and guard the person of the king, the *central's sacred* was removed, and an additional line or row of points was added behind the common pebbles or pawns. Doubling some of these officers, so as to increase the number to eight, and increasing the number of single pebbles, or pawns from five to eight, are regarded as subsequent innovations

The learned inquiries of our author tend to show that the Scythians, (the ancestors of the present Tartars,) occupying the desert tracts eastward of the Caspian, were the original inventors of the game from which chess has been produced by a regular series of improvements and modifications made during three thousand years: therefore that the game existed long before the siege of Troy; and that it thence spread westward to Greece, south-west to Persia, south-east to India, and east to China; and that in each country it received certain modifications and additions.

The game was gradually introduced into Rome, and probably formed the *Ludus Latruncularum*. The object of this game, and the method of playing it, were similar to the *petreia*, except that there was no *sacred*; and that the power of *checking* was lost by the absence of the central space. Hyde is of opinion that the *Ludus Latruncularum* greatly resembled the modern draughts, in that the pebbles moved diagonally, made captures by leaping over the pebbles of the antagonist, and that they were crowned. On these points Christie is at issue with Hyde, and he also objects to the interpretation of Ovid by Daines Barrington, that the pieces were shaken like dice instead of being moved like draught-men.

The Chinese chess is a contest between two small bands of soldiers on the banks of a river: to these a number of pieces is added, the chief office of which is to defend the general, and to capture straggling opponents. The pieces and men, as in the ancient *petreia*, have no distinction as to form: they are flat counters of ivory, an inch in breadth, and a quarter of an inch in thickness, and are distinguishable from each other only by means of certain lines marked upon them.

Christie is of opinion that the Hindoo who, thirteen centuries ago, is said to have invented chess, borrowed the ancient game from the Tartars, who were, and still are, the links of communication between all the nations of Asia, and gave to it some of the modifications already alluded to. The Chinese game in which the combatants, five on each side, fight on the opposite banks of a symbolical river, is supposed by our author to be a more primitive form than the Hindoo, derived from the Tartars, and subjected to less alteration. Mr. Davis, in his recent work on China, says,—“The Chinese chess differs in board, men, and moves, from that of India, and cannot in any way be identified with it, except as being a game of skill, and not of chance.”

It must be confessed, from melancholy experience, that a speculative acquaintance with the rules of duty, is too compatible with the violation of its dictates, and that it is possible for the convictions of conscience to be habitually overpowered by the corrupt suggestions of appetite. To see distinctly the right way, and to pursue it, are not precisely the same thing. Still nothing in the order of means promises so much success as the diligent inculcation of revealed truth. He who is acquainted with the *terrors of the Lord*, cannot live in the neglect of God and religion with present, any more than with future, impunity; the path of disobedience is obstructed, if not rendered impassable; and wherever he turns his eyes he beholds the sword of Divine justice stretched out to intercept his passage. Guilt will be appalled, conscience alarmed, and the fruits of unlawful gratification embittered to his taste.—ROBERT HALL.

Or the great number to whom it has been my painful professional duty to have administered in the last hours of their lives, I have sometimes felt surprised that so few have appeared reluctant to go to “the undiscovered country, from whose bourne no traveller returns.” Many, we may easily suppose, have manifested this willingness to die from an impatience of suffering, or from that passive indifference, which is sometimes the result of debility and extreme bodily exhaustion. But I have seen those who have arrived at a fearless contemplation of the future, from faith in the doctrine which our religion teaches. Such men were not only calm and supported, but cheerful in the hour of death; and I never quitted such a sick chamber, without a wish that my last end might be like theirs.—SIR HENRY HALFORD.

RURAL SPORTS FOR THE MONTHS. OCTOBER.

See! from the brake the whirring pheasant springs,
And mounts exulting on triumphant wings:
Short is his joy; he feels the fiery wound,
Flutters in blood, and panting beats the ground.
Ah! what avail his glossy, varying dyes,
His purple crest, and scarlet-circled eyes,
The vivid green his shining plumes unfold,
His painted wings, and breast that flames with gold!—POPE.

Our tables are supplied with a very delicate article of food by means of the sport for which this month is distinguished. Pheasant-shooting commences on the 1st of October, and these birds, which are no less remarkable for the elegance of their forms than for the beauty of their plumage, are also highly prized in an economical point of view in all the countries where they are found. As an ornament to parks and thickets they are unrivalled among British or naturalized species, and in the rich and glowing colours of their plumage they seem to belong to another and a more brilliant clime.

Pheasants are in general shy and solitary birds, frequenting the thickest coverts. Spaniels are therefore usually employed by the pheasant-shooter, and are required to be strong, short on the legs, and courageous; since the thickness of the coverts will oppose, and sometimes overpower any but the strongest and best-made dogs. Pointers, beagles, and even terriers, are also used in this sport, but the nature of the locality will best determine the sort of dogs to be employed. Pheasant-shooters, in general, assemble early, and after searching the stubbles of wheat, barley, and bean-fields, proceed to the neighbouring woods. A foggy day is not deemed unfavourable to the sport, for pheasants are apt to wander from their close retreats in such weather, while in bright sunshine they keep mostly to the depth of the woods. They are often spoken of as birds of easy conquest, on account of their size and the slowness of their flight, and they have even been called stupid, because when roused, one of them will often perch on a tree, and have its attention so riveted on the dogs as to allow the sportsman to approach very near. The old birds, however, have been observed to have recourse to various stratagems, before they have been compelled to take wing, and when they rise, the whirring noise they make with their wings, and the disturbance of the leaves, through which they are making their way, is so startling to the inexperienced hand, that many a young sportsman finds his first attempts at pheasant-shooting far less easy of accomplishment than he had been led to expect. In October the trees are so full of foliage, that it is a difficult and wearisome task to beat the woods for pheasants, in addition to which the birds often rise without being seen, and when seen and shot, they are frequently lost, or the search after them occupies a considerable time. Shooters therefore endeavour to meet with them in potatoe or turnip-fields, deep stubbles, and rushy fields, near covers, but especially under hedges, holly-trees, or in coppices, where they are generally pointed by the dogs, and the greater part of them being young birds, they are easily killed. November is considered by many sportsmen as the month in which pheasant-shooting is to be had in perfection. The leaves have then fallen from the trees, and no longer obstruct the view of the rising bird, the pathways in the woods are more easily traversed, and the birds themselves are full grown, and in better condition than during the preceding month. But these advantages may be looked on as in some measure counterbalanced by the increased wariness of the birds, and their comparative scarcity after the earlier shootings have thinned their numbers, and have taught those that remain to flee the report of the destructive gun.

It is only on particular occasions that sportsmen intentionally destroy the hen-pheasant. It seldom happens

that the hens become too numerous, and as they are easily distinguished from the male birds, they are generally spared. A conventional understanding was formerly entered into, that a fine of half-a-guinea should be paid to the keeper of the manor whenever a hen-pheasant was killed. This is frequently evaded, but is nevertheless a wise regulation. It is thus noticed by the poet Pyc:—

But when the hen to thy discerning view,
Her sable pinion spreads, of duskier hue,
The attendant keeper's prudent warning hear,
And spare the offspring of the future year;
Else shall the *fine*, which custom laid of old,
Avenge her slaughter by the forfeit gold.

The Common Pheasant (*Phasianus Colchicus*, LINN.) is considered as the type of the genus *Phasianus*; and though not originally British is completely naturalized in our country, and adapts itself with facility to our climate, as it does to that of most other temperate regions of the earth where it has been introduced.

It seems generally admitted that the pheasant was originally brought from the banks of a celebrated river in Asia Minor. This river is in ancient Colchis, and was once of so much importance that many towns were erected on its banks, and one hundred and twenty bridges crossed its waters, in different parts of its course. Its ancient name was *Phasis*, but it is now called the *Faz*, and sometimes the *Rion*: the Russians are now entirely in possession of its navigation. The ancient Greeks, we are told, in ascending this stream were attracted by the beauty of the birds which they saw in great numbers on its banks, and soon secured to themselves this valuable addition to their luxuries. Thus pheasants were rapidly introduced to the southern countries of Europe, and generally made part of the expensive and superabundant repasts of the ancients. Heliogabalus, in his ostentatious folly, is said to have fed the lions in his menagerie with these birds. The banks of the *Phasis* are still, as in ancient times, remarkable for the number of fine pheasants to be seen there. The name of these birds, as it is evident, is derived from that of the river: in Italy they are called *Fasiano*, in France, *Faisan*. The time of their introduction into Great Britain is uncertain. In the time of our first Edward the price of a pheasant was four-pence, but we must remember the superior value of money in those days, and also the rate at which other provisions were sold. For instance,—during the same reign we find that wheat was sold at one shilling and eight-pence the quarter. A receipt “for to boile Fesant” is also found in a book stated to have been compiled by the master-cook of Richard the Second, and this proves the bird to have been known as early as 1381.

The accurate description of the common pheasant by Bewick need only be compared with the reality, to prove its faithfulness. According to this Naturalist the bird is two feet eleven inches in length. The bill is of a pale horn colour; the nostrils are hid under an arched covering; eyes yellow, and surrounded by a space, in appearance like scarlet cloth, finely spotted with black; immediately under each eye is a patch of short feathers of a dark glossy purple: the upper parts of the head and neck are deep purple, varying to glossy green or blue; lower parts of the neck and the breast reddish chestnut, with black indented edges; the sides and lower part of the breast the same, with pretty large tips of black to each feather, which in different lights vary to a glossy purple; the under parts of the body are dusky: the back and scapulars beautifully variegated with black and white, or cream-colour speckled with black, and mixed with deep orange, all the feathers edged with black; on the lower part of the back is a mixture of green; the quills are dusky, freckled with white; the two middle feathers of the tail are about twenty inches long, the shortest on each side less than five, of a reddish brown marked with transverse bars of black: legs dusky, with a short blunt

spur on each, but in some old birds the spurs are as sharp as needles; between the toes there is a strong membrane. The female is less, and does not exhibit that variety and brilliancy of plumage which mark the male; the general colours are light and dark brown, mixed with black, the breast and belly finely freckled with small black spots on a light ground; the tail is short, and barred with black somewhat like that of the male; the space round the eye is covered with feathers.

The common pheasant is the only one of its kind which has multiplied freely in our island. The beautiful natives of China, the golden and silver pheasant, are confined to parks and aviaries. The hen pheasant makes her nest on the ground, and lays from twelve to fifteen olive-coloured eggs, which are smaller than those of the domestic hen. The incubation lasts about three weeks; at the expiration of which time the young break the shell, and follow their mother like chickens.

The eggs are sometimes destroyed in mowing the clover near the woods which pheasants frequent, and of those which are hatched it is reckoned that one-third never attain their full growth, for many die in their first moulting, and numbers more in a disorder of the trachea, commonly called "gapes." This disease is occasioned by an intestinal worm, which adheres to the inner surface of the wind-pipe, and causes death by suffocation, sometimes arising from inflammation of the part, sometimes by actual obstruction. Fumigation by tobacco, when carefully employed, has been found to cure this disorder, but a simpler means of cure in the case of domestic poultry, amongst whom the disease is common, is to put a pinch of common salt far back in the mouth of the bird so as to reach the upper part of the trachea.

These birds have always shown a remarkable timidity and indisposition to become domesticated like other gallinaceous poultry. Mr. Waterlow has the following remarks on this subject:

Notwithstanding the proximity of the pheasant to the nature of the barn-door fowl, still it has that within it, which baffles every attempt on our part to render its domestication complete. What I allude to is a most singular innate timidity, which never fails to show itself on the sudden abrupt appearance of an object. I spent some months in trying to overcome this timorous propensity in the pheasant, but I failed completely in the attempt. The young birds which had been hatched under a domestic hen soon became very tame, and would even receive food from the hand, when it was offered cautiously to them. They would fly up to the window and feed in company with the common poultry. But if any body approached them unawares, off they went to the nearest cover with surprising velocity. They remained in it till all was quiet, and then returned with their usual confidence. Two of them lost their lives in the water by the unexpected appearance of a pointer, while the barn-door fowls seemed scarcely to notice the appearance. The rest took finally to the woods at the commencement of the breeding season.

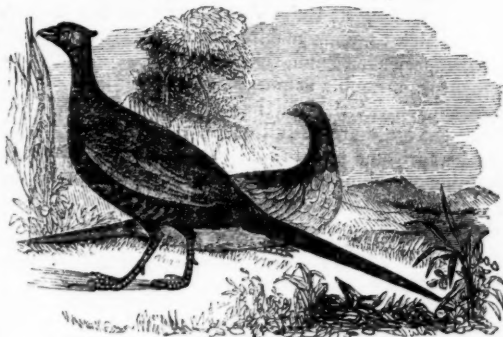
Yet when pheasants are in the constant habit of being attended in the covers by a keeper, they attend to his whistle and come in flocks to be fed; but this is during severe weather and when they are pressed by a scarcity of food.

Pheasants are very general feeders: blackberries, sloes, haws, grain, seeds, and tender leaves are eaten by them, together with a great number of insects. The hen bird when kept in confinement will lay many eggs, but does not dispose them properly in a nest or sit upon them. The eggs are therefore generally placed under a common hen, and when they are hatched the young are reared in the following manner. During the first month their food consists of hard boiled eggs, crumbs of bread, and lettuce leaves, well mixed, with an addition of the eggs of meadow-ants. This food must be given frequently and in small quantities. Every kind of moisture is hurtful to them at this early age, and it is therefore necessary to keep them without water, and never to let

them go abroad until the dew is dried up. The place in which they are kept, must be very clean, and they should be taken in before sunset. In the second month they may receive more substantial food, such as wheat, barley, ground beans, and a variety of small insects, with the eggs of wood-ants. They must now have access to small heaps of fine sand, or of dry earth, that they may rid themselves of the vermin with which they begin to be infected. Clean water must also be given to them frequently. In the third month the young birds may be carried, with the crib, into the fields, if possible where there is white clover, the seeds of which are found to strengthen them and forward their growth. They must at first be fed in the field with their usual food, but the quantity may be daily diminished, so that they may learn to depend more and more upon their own resources, and become better acquainted with the country. After a time they will grow as wild as those bred in the woods, and will no longer require to be provided for by those who took the trouble to rear them.

It has been found easier to collect pheasants together on an estate, than to keep them there, when collected. They often leave the place where they have been bred in search of food that is congenial to them: on this account it is found necessary to supply the covers with a variety of food, and to take care that water is also at hand. Mr. Yarrell mentions a mode of inducing them to stay at home which is occasionally adopted, *i.e.* sowing in summer, beans, peas, and buckwheat mixed together, and allowing the whole crop to remain standing on the ground. For winter feeding, cart-loads of raw potatoes are occasionally driven into the covers and scattered about by hand.

We cannot close our notices of the pheasant without mentioning the rare species of this genus of which a specimen was exhibited some few years ago in the Zoological Gardens, Regent's Park. It is a native of some parts of the Chinese Empire, but is very rare in Pekin. The specimen alluded to was found on the snowy mountains of Surinagur, and was called *Doomdurour* or Long Tail. It was a most beautiful bird, and the tail-feathers were of the extraordinary length of five feet six inches. This species is called, from the name of the gentleman who first introduced it into Europe, "*Reeves's Pheasant.*"



PHEASANTS.

PERHAPS in no trade has the division of labour been successfully carried to so great an extent as in that of watch-making. In an examination before a committee of the House of Commons, it was stated that there are a hundred and two distinct branches of this art, to each of which a boy may be apprenticed.—G. POULETT SCROPE.

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